

### **REMARKS**

Entry of the above amendments is respectfully requested. Claims 1 and 7 have been amended. Claims 12-16 and 18-20 have been cancelled. Claims 1-11 remain pending in this case. No new matter has been added by the amendment. Reconsideration and allowance of the application, as amended, are respectfully requested.

Claims 1-3, 5, and 12-13 have been rejected under 35 U.S.C. 103(a) as being unpatentable over USP 5,799,121 (*Duck*) in view of USP 4,111,524 (*Tomlinson*). Claims 7-9 and 11 have been rejected under 35 U.S.C. 103(a) as being unpatentable over *Duck* in view of *Tomlinson* (combination referred to as DIT) and further in view of Applicant's disclosure of prior art. Claims 4, 10, 14-16 and 18-20 have been rejected under 35 U.S.C. 103(a) as being unpatentable over DIT and further in view of USP 6,499,886 (*Mizuno*). In response, Applicant has cancelled the above-noted claims, and otherwise respectfully traverses the rejections.

The features of the invention define a filter module which includes a lens through which an optical signal passes, three optical fibers including first, second, and third optical fibers, an optical filter that transmits the optical signal in a particular wavelength band among a wavelength multiplex optical signal and reflects the optical signal in a wavelength band other than the particular wavelength band, and a mirror that reflects the optical signal transmitted through the optical filter. In addition, the three optical fibers are arranged on a single side of the lens, the first optical fiber receives the wavelength multiplex optical signal from the lens or outputs the wavelength multiplex optical signal to the lens, the second optical fiber receives or outputs the optical signal reflected by the filter, and the third optical fiber receives or outputs the optical signal reflected by the mirror after transmitted through the optical filter.

*Duck* (USP 5,799,121) discloses a multi-port optical device having input and output ports 10, 12, a graded index lens 14, and a reflective surface 16 or a WDM filter

28. Optionally, a filter 37 is provided. Light of wavelengths  $\lambda_1$  to  $\lambda_4$  may be launched into the input port 10. Light of wavelengths  $\lambda_2$  to  $\lambda_4$  are reflected by the filter 28 to the output port 12 and  $\lambda_1$  is passed through the filter 28. Light of wavelength  $\lambda_1$  does not return to an input side of the lens 14 as required by amended claims 1 and 7. In addition, the *Duck* device does not have a mirror. Accordingly, the *Duck* device cannot operate according to the present invention, as defined in the claims, and is essentially totally different from the claimed invention in their structures and functions.

*Tomlinson* (USP 4,111,524) discloses a wavelength division multiplexer having a grin-rod lens 15 and a grating 16. Input light is demultiplexed by the grating 16 and then output from two output fibers 12, 13. The multiplexer/demultiplexer uses the fact that the light outputs have different diffraction angles according to their wavelengths. When light multiplexed with a plurality of wavelengths is incident to the grating 16 located at a position with a fixed grating angle,  $\theta$ , the light is branched according to each wavelength, then branched light is entered into an associated output fiber located at a position associated with each branched wavelength of light, and then comes out from the output fiber. The *Tomlinson* device does not have a mirror and a filter and cannot operate like the present invention as defined in the claims. Again, the *Tomlinson* disclosure is quite different from the claimed device.

*Mizuno* (USP 6,499,886) discloses glass parts for connecting optical fibers. *Mizuno* clearly fails to disclose and teach the claimed device.

Applicant's prior art discloses a filter module 72 having a single lens 83, two optical fibers 80, 81, a capillary 82, and an optical filter 87. However, the prior art filter module 72 does not have a mirror and three optical fibers supported by a capillary, each having the functions described in Applicant's specification and previous Replies. Again, prior art structure of Figure 9 clearly does not disclose the claimed device.

Therefore, it is respectfully submitted that the rejections should be reconsidered and withdrawn and that the present application (including independent claims 1 and 7,

and their dependent claims) is in condition for allowance. Such action is respectfully requested.

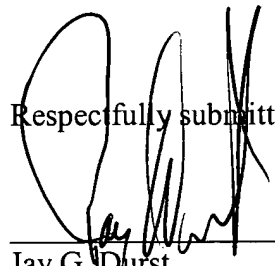
### CONCLUSION

In view of the present amendments and above remarks, pending claims 1-11 are believed to be novel and non-obvious over the cited art and an indication to that effect is respectfully requested.

Should the Examiner have any questions or wish to discuss this case further for any reason, he is invited to contact the undersigned at the telephone number appearing below.

A check in the amount of \$120.00 is enclosed for a one-month extension of time. Should the Examiner consider any other fees to be payable in conjunction with this or any further communication, the Commissioner is authorized to direct payment of such fees or credit any overpayment, to Deposit Account 50-1170.

Respectfully submitted,

  
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